

Pool water quality

Disinfectant requirements

Type of pool	Chlorine	Bromine
Pool water 84° F or below	0.5 ppm - 5.0 ppm	1.0 ppm - 10.0 ppm
Pool water above 84° F, pH above 7.7, cyanuric acid above 30 ppm	1.0 ppm - 5.0 ppm	2.0 ppm - 10.0 ppm
Wading pools	1.0 ppm - 5.0 ppm	2.0 ppm - 10.0 ppm
Spas	2.0 ppm - 5.0 ppm	4.0 ppm - 10.0 ppm

Combined chlorine: 0.5 ppm maximum

Cyanuric acid: 100 ppm maximum

Alkalinity: At least 50 ppm

Clarity: Main drain must be visible

pH: 7.2 - 8.0

Temperature: 104° F maximum

Test kits

Use D.P.D. for free residual and total residual. Approved test kits are required for alkalinity and pH. Cyanuric test kits are required for stabilized chlorine pools.

Safety requirements

- A. One unit of emergency equipment for every 2,000 square feet of pool surface area; includes the following:
 1. **Ring buoy** attached to a 3/16-inch manila, or equivalent material, rope that is 1-1/2 times the pool width, but not over 60 feet. If a lifeguard is provided, a rescue tube may be substituted.
 2. **Life pole or shepherd's crook** with blunted ends and a minimum fixed length of 12 feet.
 3. Equipment must be readily accessible and plainly marked "**For Emergency Use Only**".
- B. **Transitional markings** must be provided where a steeper slope occurs with a minimum six-inch wide dark contrasting color on the bottom and sides of the pool.
- C. **Depth** marked in numbers and letters, in contrasting colors, four inches high with water depth specified in feet and inches. Indicate markings:
 1. On the edge of the deck next to the pool;
 2. At the maximum and minimum depths;

3. On all vertical sides of the pool;
 4. Where the slope changes from shallow to deep; and
 5. At intermediate increments of depth spaced at not more than 25 foot intervals.
- D. "**No Diving**" markings or the universal no diving symbol in four inch letters of contrasting color must be located on the pool deck and all sides of the pool where diving is not permitted. Space markings at not more than 25 foot intervals.
 - E. **Stair markings** must be a stripe of 1/2 to 2 inch wide in a dark contrasting color. They must be on the leading edge of stair treads.
 - F. **Safety line floats** are required for restricted or recessed areas in general swimming pools set aside primarily for the use of children.
 - G. **First aid kit** must be provided. Spine board required when lifeguard is present.
 - H. **User safety and sanitation** signs must be posted in pool enclosure and dressing rooms.
 - I. **Pool capacity** bather load must be posted in the pool enclosure area.
 - J. **Emergency telephone** must be installed in pool area with emergency telephone numbers posted or post a sign stating where the phone is located.
 - K. **Back boards** provided for pools with diving facilities and when lifeguard is present.
 - L. **Warning signs** that are worded exactly as follows on color contrasting background. Sign must be mounted in the pool area where it can be read by all visitors.
 1. **In four-inch letters:** "Warning-No Lifeguard on Duty"
 2. **In one-inch minimum letters:** "Children must not use pool without an adult in attendance"
 - M. **Fence:** Access to a public pool must be controlled to effectively prevent the entrance of children.
 1. **Existing fencing:** A minimum of a four-foot high fence to prevent entry by young children. No openings greater than four inches and not of a readily-climbable design. Doors/gates must be self-closing, self-latching and capable of being locked.
 2. **New construction:** A minimum of a five-foot high fence is required for new installations with no opening greater than four inches and no opening greater than two inches below the fence. Fence must not be of a readily-climbable design. Latches must be located four feet above the ground and be self-closing, self-latching and capable of being locked.

Pool operators

Every swimming pool shall be operated under the direct supervision of a trained operator. The trained operator must be trained in safe chemical handling and use of protective equipment in addition to pool operation and sanitation. The trained operator must be a certified trained operator who must complete an approved training course at least once every five years. A copy of the training certificate must be posted at the facility whenever the pool is open for use.

Daily records

Daily records must be kept of all test measurements and maintenance performed. Pools must be checked for disinfectant residuals, including both free and total, and pH at least once daily, and more often during heavy bathing loads. Total alkalinity, temperatures, and cyanuric acid (stabilized pools) must also be recorded. **A daily physical inspection of the drain outlet covers and recording of the inspection on a daily log is required.** Pool records must be maintained for six years. Any accidents or injuries requiring assistance from a lifeguard or emergency medical personnel must be recorded. All pool incidents resulting in death or serious injury that requires assistance from emergency medical personnel must be reported to Environmental Health immediately.

Cleanliness

Pools and decks must be kept clean, sanitary and in good condition on a daily basis. A vacuum-cleaning system must be provided. Spa pools are exempt from the vacuum requirement if they have less than 75 square feet of water surface.

Chemical storage

Pool chemicals must be kept cool, dry and covered in a secure location. Labels must be intact and label directions followed. Separate the storage of acids, bases and oxidizers and store according to manufacturer's instructions.

Maintenance

Pools, equipment, appurtenances and facilities must be in good condition and repaired or replaced in an approved manner. Mechanical disinfection feeders shall be used. Flow rate meters and pressure gauge for the filters must be provided. Pools equipped with heaters must have a fixed thermometer in the recirculation line to measure the temperature of the water returning to the pool.

Backflow protection

Approved backflow protection for water being introduced into the pool must be provided by either an air gap or a suitable backflow preventor.

License

A current pool license must be possessed by the operator or owner and be posted within the pool equipment room or another approved location.

Grounds for closing the pool

- A. Free residual disinfectant below the legal minimum for the swimming pool (*see Disinfectant requirements on page 1*).
- B. Excessive total disinfectant: Chlorine above 10 ppm, or bromine above 20 ppm, pool will be closed immediately. Must take immediate action to lower if chlorine is 5 - 10 ppm or bromine is 10 - 20 ppm.
- C. Lack of pool clarity: Bottom drain must be visible at all times.
- D. Safety equipment missing: absence of any item listed under Safety requirements A on page 1.
- E. Pool altered or constructed without approval of plans from the Health Authority.
- F. Other conditions deemed by the inspector to pose a serious threat to public health or safety.
- G. Unsecure or missing outlet cover(s).

A means of locking all pool gates and notifying prospective users that the pool is temporarily closed shall be provided. The pool is not to be re-opened until the condition is corrected and approval to reopen is granted by the inspector.

Recirculation rate

Pools: Six hours or less.

Spas: 30 minutes or less.

Main drain

- A. All public pools with the deepest part being **less than 4 feet must have one of the following:**
 1. An unblockable suction outlet or drain cover.
 2. At least two suction outlets, connected in parallel with suction outlet covers that meet ASME/ANSI standards.
 3. A gravity outlet or drain.

Failure to comply with this regulation will result in immediate closure of the pool and the City of Bloomington will not renew your license until the pool has one of the anti-entrapment devices described above.

Inlets

Must be directionally adjustable and located so there is a uniform circulation of incoming water.

Use of gas chlorine

See code handout.